



REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claims 39, 40, 42-50 and 52-66 are pending. No claims have been amended, added or cancelled.

Claims 39, 42-50, 52-59 and 61-66 are believed to be¹ rejected under §103(a) as being obvious over Porter (U.S. Patent 6,823,717). Claims 40 and 60 are rejected under §103(a) as being obvious over Porter (U.S. Patent 6,823,717) in view of Tortonese. These rejections are respectfully traversed.

Independent claims 39 and 50 of the present application recite a metal thin film piezoresistor. Porter does not teach or suggest this limitation.

The Office Action points to column 11, line 58 of Porter for the alleged teaching of a metal piezoresistor. However, column 11, line 58 of Porter teaches a barium titanate piezoresistor. Barium titanate is a ceramic oxide having the formula BaTiO₃. Barium titanate is not a metal. A metal is electrically conductive, while barium titanate is electrically insulating. Thus, Porter's barium titanate piezoresistor is completely different from the claimed metal piezoresistor.

Applicants enclose an exhibit containing a definition of the term "barium titanate" from the Random House Unabridged Dictionary, which is available on www.infoplease.com and the barium titanate webpage from the online wikipedia encyclopedia (www.en.wikipedia.org/wiki/Barium_titanate). Both of these web pages define barium titanate as an oxide ceramic material having the formal BaTiO₃. Clearly, this material is not a metal.

¹ Line 1 of section 2 of the Office Action indicates that only claim 39 is rejected. However, the rest of section 2 and form PTOL-326 indicate that claims 39, 41-50 and 52-66 are apparently rejected.

Therefore, Porter does not teach or suggest a metal piezoresistor. There is also no motivation to substitute the ceramic piezoresistor of Porter with a metal piezoresistor.

Applicants note that the present specification provides evidence of unexpected results arising from the use of the metal piezoresistor compared to the non-metal piezoresistors, such as semiconductor piezoresistors. For example, as explained on pages 15-16 of the present specification, the metal piezoresistor provides a factor of 40 reduction in the Johnson noise, a lower resistance, improve operation at higher frequencies and improved temperature coefficient of resistivity (TCR) and temperature coefficient of gage factor (TCGF). These results are unexpected from the teaching of Porter and are further evidence of the non-obviousness of the presently claimed invention.

Applicants respectfully request a withdrawal of the rejections over Porter. Tortonese teaches a semiconductor piezoresistor and was applied only against the dependent claims. Thus, Tortonese does not remedy the deficiencies of Porter.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date

n/2/06

By



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